

Planning and Development (Conditional Environmental Significance Opinion – Numerous Blocks, Nature Reserves – Roadside Vegetation Management and Fire Trail Upgrades) Notice 2019

Notifiable instrument NI2019–219

made under the

Planning and Development Act 2007, s 138AD (Requirements in relation to environmental significance opinions)

1 Name of instrument

This instrument is the *Planning and Development (Conditional Environmental Significance Opinion – Numerous Blocks, Nature Reserves – Roadside Vegetation Management and Fire Trail Upgrades) Notice 2019*.

2 Conditional Environmental Significance Opinion

- (1) On 29 March 2019, the Conservator of Flora and Fauna, pursuant to section 138AB (4) of the *Planning and Development Act 2007* (the *Act*), gave the Applicant a conditional environmental significance opinion for works, on numerous blocks in Namadgi National Park and Tidbinbilla, Bullen Range and Molonglo River Nature Reserves, consisting of roadside vegetation management and fire trail upgrades.

- (2) In this section:

conditional environmental significance opinion means the opinion in the schedule.

Note Under section 138AD (6) of the Act, the conditional environmental significance opinion and this notice expire 18 months after the day the notice is notified.

George Cilliers
A/g Executive Director Planning Delivery
26 April 2019

Schedule

See section 2(2)

ENVIRONMENTAL SIGNIFICANCE OPINION

In accordance with section 138AB(4) of the *Planning and Development Act 2007* (the Act), I provide the following environmental significance opinion:

APPLICANT

Fire, Forests and Roads, Parks and Conservation Service, Environment, Planning and Sustainable Development Directorate, as represented by Neil Cooper, Director.

APPLICATION and DEVELOPMENT PROPOSAL

The applicant has applied under section 138AA of the Act to the Conservator of Flora and Fauna for an environmental significance opinion to the effect that the development proposal set out in the submission is not likely to have a significant adverse environmental impact (the application).

The development proposal is for the upgrade of existing fire trails to meet strategic bushfire trail standards, and for vegetation trimming along existing fire trails within the ACT's conservation estate that is managed by the Parks and Conservation Service.

LOCATION

Namadgi National Park;
Tidbinbilla Nature Reserve;
Bullen Range Nature Reserve; and
Molonglo River Nature Reserve.

MATTERS TO WHICH THIS OPINION APPLIES

This opinion applies only to the development proposal as described in the application.

OPINION

Provided the works are undertaken in the manner consistent with the following conditions, they are unlikely to cause a significant adverse environmental impact.

This opinion is granted subject to the following conditions made under s138AB(4) of the Act.

Road work footprint

- All road works will be within the existing bare soil road pavement, or within 50cm of this pavement or on existing cut-off drains or within 50cm of any edge of an existing cut-off drain;

Trittering

- Follow up use of chemical spray will be limited to targeted weed treatment and will not involve general application in non-weed areas within the 93km of vegetation treatment (trittering and hand trimming);
- Prior to works occurring within a particular section or area, all sections subject to trittering, proposed culvert locations and any other works away from the existing road footprint (as described in the road works condition above) will be subject to rare plant survey by a botanist or someone with plant identification skills. The selection of plant surveyor should be reviewed by Conservation Research to ensure a suitable operator is appointed. Conservation Research will provide a rare plant list to those engaged;
- If a plant species of concern occurs within 5 m of the edge of the trail, and therefore within the working zone and potential impact zone of the tritterer, the botanist will determine its distribution at the site and the boundary will be buffered by 10 m. If the botanist is of the opinion that 10 m is inadequate to protect the population from the effects of the mulching, the botanist will then propose a larger buffer to be agreed by the project manager and CR;
- Trittering will not occur within 20m of Ribbon Gum (*Eucalyptus viminalis*) trees on which there are sheaths of looping bark occurring at 10m or below on the trunk or major branches, unless the trittering does not involve the mulching or removal of any bark drooping down from the tree or mulching or removal of any wattle tree or sapling present within the 20m. A Conservator Liaison Officer is happy to provide on-site instruction to operators if required;

Hand Trimming

- Those undertaking hand trimming works will be familiarised with the appearance of the following rare plant species. These species will not be subject to trimming. *Acrotriche leucocarpa*, *Boronia nana*, *Correa Lawrenceana*, *Exocarpus nanus*, *Gleichenia dicarpa*, *Grevillea diminuta*, *Hakea lissosperma*, *Leionema lamprophyrum*, *Muehlenbeckia axillaris*, *Ozaethamus*

cupressoides, *Ozathamus rosmarinifolius*, *Pimelea ligustrina*, *Pomaderris phyllicifolia*, *Prostanthera phyllicifolia* and any Grass tree (*Xanthorrhoea* sp.);

Culverts

- No new culverts will be built within the Bimberri wilderness area until satisfactory remediation works have been completed on the recently constructed culverts and associated works at Bimberri and Little Bimberri Creeks which were installed without development approval;
- Built structural crossings of Jack's Creek should be avoided and preference given to a low level splash crossing. It is understood that rigid float vehicles can already cross the creek and that works on the creek approaches would probably alleviate difficulties and therefore meet the required fire access standards while minimising impacts on wilderness values. The existing crossing is a partial barrier so if carefully planned there is the opportunity to improve the current situation;
- Creek crossings and remediated creek crossings must be constructed in a manner that avoids creating a Fish Barrier. Advice from the Conservation Research aquatic team must be sought and an agreed approach documented and implemented;

Weed control

- Where infestations of the following weed species occur within areas proposed for trittering or road upgrade then either pre-work spraying of infestations will be undertaken or the area in which the infestation occurs will be excluded from the activity: African Love Grass (*Eragrostis curviflora*), Serrated Tussock (*Nasella trichotoma*), Chilean Needle Grass (*Nasella neesiana*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Blackberry (*Rubus ulmifolius*) Sulphur Cinquefoil (*Potentilla recta*), Nodding Thistle (*Carduus nutans*), Vipers bugloss (*Echium vulgare*), Birds-foot Trefoil (*Lotus corniculatus*) and St John's Wort (*Hypericum perforatum*);
- If new weed outbreaks occur or there is a flourishing of weeds within areas subject to the direct disturbance by the activity within one year of an activity being completed then these weeds will be controlled by or for the proponent;

Works in NSW

- The proponent must obtain and be consistent with any required approvals from NSW authorities for works in NSW.

Attached is a Statement of Reasons for the decision.



Ian Walker
Conservator of Flora and Fauna

29 March 2019

STATEMENT OF REASONS REASONS FOR THE DECISION

The proposed development is a proposal mentioned in Schedule 4 of the *Planning and Development Act 2007* – Development proposal for an activity requiring an EIS Schedule 4, being:

Part 4.3, item 1(a) development that may impact on a species or ecological community that is endangered, a species that is vulnerable; protected; or has special protection status;

Namadgi National Park contains:

Two communities listed as endangered:

- Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT;
- High Country Bogs and Associated Fens (forming a significant component of the Commonwealth listed Alpine Sphagnum Bogs and Associated Fens).

Twelve animal species listed as threatened under the *Nature Conservation Act 2014*:

- Northern Corroboree Frog (*Pseudophryne pengilleyi*)
- Two-Spined Blackfish (*Gadopsis bispinosus*)
- Trout Cod (*Maccullochella macquariensis*)
- Macquarie Perch (*Macquaria australasica*)
- Murray River Crayfish (*Euastacus armatus*)
- Hooded Robin (*Melanodryas cucullata*)
- Brown Treecreeper (*Climacteris picumnus*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- Little Eagle (*Hieraaetus morphnoides*)
- White-Winged Triller (*Lalage sueurii*)
- Smoky Mouse (*Pseudomys fumeus*)
- Spotted-Tailed Quoll (*Dasyurus maculates*)

Two plant species listed as threatened:

- a sub-alpine herb (*Gentiana baeuerlenii*); and
- Brindabella Midge Orchid (*Corunastylis ectopa*).

Tidbinbilla Nature Reserve contains:

Four animal species listed as threatened under the *Nature Conservation Act 2014*:

- Swift Parrot (*Lathamus discolor*)
- Hooded Robin (*Melanodryas cucullata*)
- Scarlet Robin (*Petroica boodang*)

- White-Winged Triller (*Lalage sueurii*)

Bullen Range Nature Reserve contains:

Six animal species listed as threatened under the *Nature Conservation Act 2014*:

- Pink-tailed Worm-lizard (*Aprasia parapulchella*)
- Scarlet Robin (*Petroica boodang*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- White-Winged Triller (*Lalage sueurii*)
- Murray River Crayfish (*Euastacus armatus*)
- Perunga Grasshopper (*Perunga ochracea*)

Two plant species listed as threatened:

- Murrumbidgee Bossiaea (*Bossiaea grayi*)
- Tuggeranong Lignum (*Muehlenbeckia Tuggeranong*)

Molonglo River Nature Reserve contains:

One community listed as endangered:

- Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT

Four animal species listed as threatened under the *Nature Conservation Act 2014*:

- Pink-tailed Worm-lizard (*Aprasia parapulchella*)
- Scarlet Robin (*Petroica boodang*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- White-Winged Triller (*Lalage sueurii*)

One plant species listed as threatened:

- Murrumbidgee Bossiaea (*Bossiaea grayi*)

Part 4.3, item 2(a) the clearing of more than 0.5ha of native vegetation other than on land that is designated as a future urban area

The proposal will impact on approximately 37ha of native vegetation.

Part 4.3, item 3 proposal for development on land reserved under s 315 for the purpose of a wilderness area, national park, nature reserve or special purpose reserve.

The works are being undertaken within a national park, wilderness area and several nature reserves.

The proponent wants the application for the development approval assessed in the merit track on the grounds that the proposal is not likely to have a significant adverse environmental impact, and has applied to the Conservator of Flora and Fauna to that effect.

Meaning of *significant* adverse environmental impact

An adverse environmental impact is *significant* if—

- (a) the environmental function, system, value or entity that might be adversely impacted by a proposed development is significant; or
- (b) the cumulative or incremental effect of a proposed development might contribute to a substantial adverse impact on an environmental function, system, value or entity.

In deciding whether an adverse environmental impact is *significant*, the following matters must be taken into account:

- (a) the kind, size, frequency, intensity, scope and length of time of the impact;
- (b) the sensitivity, resilience and rarity of the environmental function, system, value or entity likely to be affected.

In deciding whether a development proposal is likely to have a significant adverse environmental impact it does not matter whether the adverse environmental impact is likely to occur on the site of the development or elsewhere.

It has been determined that the proposal is unlikely to have a significant environmental impact, based on the documentation submitted, known values of the site, and provided the works and ongoing management are carried out in accordance with the conditions attached to this ESO.

Project description

The proposed works are for the upgrade of existing fire trails (approximately 54.5 km) to meet strategic bushfire trail standards, and for vegetation trimming along existing fire trails (approximately 93.3 km) within the ACT's conservation estate that is managed by the Parks and Conservation Service. The works are within:

- Namadgi National Park;
- Tidbinbilla Nature Reserve;
- Bullen Range Nature Reserve; and
- Molonglo River Nature Reserve.

Vegetation management

Vegetation that encroaches on the fire trail, and impedes access by fire units or obstructs the line of sight on corners, will be mulched with the use of machinery to approximately 2.0 m from the edge of existing fire trails, or to the outside of road drainage structures. Some areas will be treated up to 4.0 m in depth at sharp bends

and switchbacks to further improve sight lines at these conflict points. The minimum height of vegetation after treatment will be 10 cm.

Vegetation along the edge of Cotter Hut Road and Yaouk Gap Fire Trail will be trimmed by hand using brushcutters and chainsaws as they are located within the wilderness area.

Trees less than 20 cm diameter at breast height (or less than 10 cm for snow gum *Eucalyptus pauciflora*) may be felled. Those of bigger girth will be pruned where necessary to facilitate passage of fire vehicles of a type designated to the fire trail.

Access upgrade works

Access upgrade works are proposed on Clear Range Fire Trail, Yaouk Gap Fire Trail, Harrison's Crossing, and Tong's Hole access track:

- Clear Range Fire trail (north and south) is the largest part of the proposed works at around 45 km in length. The proposed works include: maintenance grading, sheeting of boggy sections, construction of rollover drains, adjustments to tight corners, removal of established trees (where they create a pinch point on both sides of track), and installation of culverts if required.
- The proposed works on Yaouk Gap Fire trail include works at three creeks; Bimberi Creek, Little Bimberi Creek and Jacks Creek. Installation of culverts and modification of existing track drainage including grading of boggy sections has been proposed.
- Proposed works for Harrison's Crossing include changes to the embankment approaches. This will involve excavating the rock walls of the cuttings to provide more room for the roadway. Estimated total area of impact will be less than 200 m². Some understorey vegetation will be removed, as well as any significant trees which root zones or stability are affected.
- Proposed works for Tong's Hole access track includes placing rock in a boggy section of trail which sits below a farm dam outfall. The total area affected is likely to be less than 100 m², all of which is existing track. Potential grading of the remainder of this track (550 m) has also been proposed.

Documentation Submitted

- Locality Maps x 14;
- List of upgrade and vegetation management sites and the flora and fauna known at those sites;
- List of block numbers of work locations;

- Project Description;
- Response to part 9 of Application Form;
- Protocol for cultural heritage assessment of vegetation management activities along Parks and Conservation Service (PCS) tracks and trails;
- Form 1M.

Natural conservation values present

Namadgi National Park

Namadgi National Park conserves a wide variety of ecosystems and contributes to regional ecological connectivity through its links to reserves within NSW. The ecosystems include:

- low open woodland covering much of the park with Snow Gum woodland in the high mountain areas;
- open grasslands and frost hollows on the eastern side of the park in the Orroral and Boboyan valleys;
- tall wet forests with Alpine Ash and fern gullies in sheltered locations, especially on the western side of the park;
- wetlands including sedge fens in the valleys and sphagnum moss bogs on the peaks that are important for water catchment and as habitat for the endangered Northern Corroboree Frog (*Pseudophryne pengilleyi*), and
- sub-alpine peaks and alpine communities above 1600 m.

At least 35 species of mammals, 14 species or subspecies of frog, over 41 species of reptiles, four native fish species and over 130 species of birds have been recorded in Namadgi National park. There are 12 animal species listed as threatened under the *Nature Conservation Act 2014*:

- Northern Corroboree Frog (*Pseudophryne pengilleyi*)
- Two-Spined Blackfish (*Gadopsis bispinosus*)
- Trout Cod (*Maccullochella macquariensis*)
- Macquarie Perch (*Macquaria australasica*)
- Murray River Crayfish (*Euastacus armatus*)
- Hooded Robin (*Melanodryas cucullata*)
- Brown Treecreeper (*Climacteris picumnus*)
- Varied (Sitella *Daphoenositta chrysoptera*)
- Little Eagle (*Hieraaetus morphnoides*)
- White-Winged Triller (*Lalage sueurii*)
- Smoky Mouse (*Pseudomys fumeus*)
- Spotted-Tailed Quoll (*Dasyurus maculates*)

There are two plant species listed as threatened:

- a sub-alpine herb (*Gentiana baeuerlenii*); and
- Brindabella Midge Orchid (*Corunastylis ectopa*).

Three vegetation communities in Namadgi have been identified as requiring special protection and management. These are:

- Natural Temperate Grassland of the Southern Tablelands of NSW and the ACT;
- High Country Bogs and Associated fens (forming a significant component of the Commonwealth listed *Alpine Sphagnum Bogs and Associated Fens*); and
- Black Cypress Pine Tableland Open Forest.

No works are proposed in these communities.

The Ginini Flats Wetlands is included on the *List of Wetlands of International Importance* (Ramsar) in recognition of its significant ecological characteristics and is the only Ramsar Wetland in the ACT. No works are proposed that will impact on the wetlands.

The report submitted notes that works will pass through most of the forest communities from Appendix 2 of the Namadgi National Park Plan of Management.

Bullen Range Nature Reserve

On the eastern fall down to the Murrumbidgee River the forest is tall open forest dominated by Yellow Box (*Eucalyptus melliodora*) along with Blakely's Red Gum (*Eucalyptus blakelyi*). The understory is Long-leaf Lomatia (*Lomatia myricoides*), acacia's and *Eucalyptus cinerea ssp. triplex* on the upper slopes. At the base of the slope adjacent to the Murrumbidgee there is open Box-Gum Woodland.

On the western fall the forest is mid open forest dominated by Red Stringybark (*Eucalyptus macrorhyncha*) along with Scribbly Gum (*Eucalyptus rossii*) in sunnier locations. Understorey is Long-leaf Lomatia (*Lomatia myricoides*) and acacias with occasional tussock grasses in more open locations.

Works are proposed along the ridge top along Powerline Fire Trail. This area has poor soils which supports a mid-open forest of Broad-leaved Peppermint (*Eucalyptus dives*) and Mealy Bundy (*Eucalyptus nortonii*).

At least 11 species of mammals, 8 species or subspecies of frog, over 24 species of reptiles and over 113 species of birds have been recorded in Bullen Range Nature Reserve. There are six animal species listed as threatened under the *Nature Conservation Act 2014*:

- Pink-tailed Worm-lizard (*Aprasia parapulchella*)
- Scarlet Robin (*Petroica boodang*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- White-Winged Triller (*Lalage sueurii*)
- Murray River Crayfish (*Euastacus armatus*)

- Perunga Grasshopper (*Perunga ochracea*)

The reserve contains two plant species listed as threatened:

- Murrumbidgee Bossiaea (*Bossiaea grayi*)
- Tuggeranong Lignum (*Muehlenbeckia Tuggeranong*)

Tuggeranong Lignum which is listed as threatened in the ACT and Rosenberg's Monitor (*Varanus rosenbergi*) which is listed as vulnerable in NSW have been recorded in the vicinity of the works.

Tidbinbilla Nature Reserve

At least 27 species of mammals, 9 species or subspecies of frog, over 26 species of reptiles, one native fish species and over 158 species of birds have been recorded in Namadgi National park. There are four animal species listed as threatened under the *Nature Conservation Act 2014*:

- Swift Parrot (*Lathamus discolor*)
- Hooded Robin (*Melanodryas cucullata*)
- Scarlet Robin (*Petroica boodang*)
- White-Winged Triller (*Lalage sueurii*)

The vegetation communities in the vicinity of the proposed works are primarily tall open forest, derived native shrubland and native grassland. The Greater Glider (*Petauroides volans*, listed nationally as vulnerable) and Rosenberg's Monitor have also been recorded in the area.

Molonglo River Nature Reserve

Natural temperate grassland and native grassland are the main vegetation communities in the vicinity of proposed works. Within the reserve there are four animal species listed as threatened under the *Nature Conservation Act 2014*:

- Pink-tailed Worm-lizard (*Aprasia parapulchella*)
- Scarlet Robin (*Petroica boodang*)
- Varied Sitella (*Daphoenositta chrysoptera*)
- White-Winged Triller (*Lalage sueurii*)

The reserve contains one plant species listed as threatened:

- Murrumbidgee Bossiaea (*Bossiaea grayi*)

Pink-tailed Worm-lizard has been recorded within the area of works.

In addition to the species and communities listed for each reserve, there are numerous rare plant species which may be impacted by roadside works.

Impact on the Reserve

Chapter 7 of the *Namadgi National Park Plan of Management 2010* contains fire management policies and actions. An Objective for Fire Access is **“Access infrastructure is provided to support fire management activities”**.

The Plan also states:

An access strategy for fire management in the park will be developed that takes account of environmental, social and economic values. This strategy will include:

- the provision of an appropriate fire trail network to assist in suppression and/or management operations and to provide the basis for fire fuel management activities
- specified standards for the maintenance of fire trails and classification of trails according to current codes of practice and requirements under the *Environment Protection Act 1997*

For works within Tidbinbilla Nature Reserve the relevant plan of management is the *Tidbinbilla Plan of Management 2012*. The relevant management objective is:

- Fire is managed at Tidbinbilla so that reserve values, and life and property in the reserve and on neighbouring land, are protected.

For works within the Bullen Range Nature Reserve the relevant plan of management is the *Murrumbidgee River Corridor Management Plan 1999*. The relevant management objectives are:

- To protect life and property.
- To minimise the impacts of hazard reduction and fire suppression activities;
- To protect the natural and cultural heritage through the use of ecological burns;
- To protect the natural and cultural features of the Corridor from damage by fire; and
- To protect soil stability and ground cover.

Maintenance of fire trails is required to be undertaken in accordance with the Government commitments made under the Strategic Bushfire Management Plan. Maintenance of fire trails to an agreed standard will assist in the protection of life and property, help minimise the impacts of hazard reduction and fire suppression activities, and aid in the protection of natural and cultural resources from the impacts from wildfire.

There will be short term local visual impacts due to the vegetation clearance but the works will give a substantial advantage in controlling fire and will help protect the conservation estate from the impacts of wildfire. In the event that a fire does break out, the intensity is likely to be much lower in these cleared areas allowing fire suppression activities to be more effective.

The removal of the vegetation will allow for emergency vehicle access for general operational and fire suppression activities and the use of the existing trail network to create strategic containment lines in case of wildfire. It will also reduce the threat of vehicle entrapment from burnover due to radiant heat from vegetation encroaching on the trail, and increase crew safety by creating better driver line of sight at trail corners, turns and intersections. The treated trails will also be used to prepare and 'sure up' containment lines for the hazard reduction burn program.

Potentially Significant Environmental Impacts

Although this work is being undertaken within areas previously disturbed by the construction of the trails, it still has the potential to impact on cultural sites and rare and threatened fauna and flora. To reduce the potential to impact on these sites protocols have been developed including onsite field assessments by an ecologist, and the implementation of exclusion zones where appropriate. These protocols have been listed in the submission as mitigation measures.

It has been determined that provided all works are undertaken in a manner consistent with the documentation submitted in support of the ESO; the established protocols for vegetation removal within the conservation estate; and the following conditions; they are unlikely to cause a significant adverse environmental impact.

Road work footprint

- All road works will be within the existing bare soil road pavement, or within 50cm of this pavement or on existing cut-off drains or within 50cm of any edge of an existing cut-off drain;

Trittering

- Follow up use of chemical spray will be limited to targeted weed treatment and will not involve general application in non-weed areas within the 93km of vegetation treatment (trittering and hand trimming);
- Prior to works occurring within a particular section or area, all sections subject to trittering, proposed culvert locations and any other works away from the existing road footprint (as described in the road works condition above) will be subject to rare plant survey by a botanist or someone with plant identification skills. The selection of plant surveyor should be reviewed by Conservation Research to ensure a suitable operator is appointed. Conservation Research will provide a rare plant list to those engaged;
- If a plant species of concern occurs within 5 m of the edge of the trail, and therefore within the working zone and potential impact zone of the tritterer, the botanist will determine its distribution at the site and the boundary will

be buffered by 10 m. If the botanist is of the opinion that 10 m is inadequate to protect the population from the effects of the mulching, the botanist will then propose a larger buffer to be agreed by the project manager and CR;

- Tittering will not occur within 20m of Ribbon Gum (*Eucalyptus viminalis*) trees on which there are sheaths of looping bark occurring at 10m or below on the trunk or major branches, unless the tittering does not involve the mulching or removal of any bark drooping down from the tree or mulching or removal of any wattle tree or sapling present within the 20m. A Conservator Liaison Officer is happy to provide on-site instruction to operators if required;

Hand Trimming

- Those undertaking hand trimming works will be familiarised with the appearance of the following rare plant species. These species will not be subject to trimming. *Acrotriche leucocarpa*, *Boronia nana*, *Correa Lawrenceana*, *Exocarpus nanus*, *Gleichenia dicarpa*, *Grevillea diminuta*, *Hakea lissosperma*, *Leionema lamprophyrum*, *Muehlenbeckia axillaris*, *Ozathamus cupressoides*, *Ozathamus rosmarinifolius*, *Pimelea ligustrina*, *Pomaderris phyllicifolia*, *Prostanthera phyllicifolia* and any Grass tree (*Xanthorrhoea* sp.);

Culverts

- No new culverts will be built within the Bimberri wilderness area until satisfactory remediation works have been completed on the recently constructed culverts and associated works at Bimberri and Little Bimberri Creeks which were installed without development approval;
- Built structural crossings of Jack's Creek should be avoided and preference given to a low level splash crossing. It is understood that rigid float vehicles can already cross the creek and that works on the creek approaches would probably alleviate difficulties and therefore meet the required fire access standards while minimising impacts on wilderness values. The existing crossing is a partial barrier so if carefully planned there is the opportunity to improve the current situation;
- Creek crossings and remediated creek crossings must be constructed in a manner that avoids creating a Fish Barrier. Advice from the Conservation Research aquatic team must be sought and an agreed approach documented and implemented;

Weed control

- Where infestations of the following weed species occur within areas proposed for trittering or road upgrade then either pre-work spraying of infestations will be undertaken or the area in which the infestation occurs will be excluded from the activity: African Love Grass (*Eragrostis curviflora*), Serrated Tussock (*Nasella trichotoma*), Chilean Needle Grass (*Nasella neesiana*), Sweet Vernal Grass (*Anthoxanthum odoratum*), Blackberry (*Rubus ulmifolius*) Sulphur Cinquefoil (*Potentilla recta*), Nodding Thistle (*Carduus nutans*), Vipers bugloss (*Echium vulgare*), Birds-foot Trefoil (*Lotus corniculatus*) and St John's Wort (*Hypericum perforatum*);
- If new weed outbreaks occur or there is a flourishing of weeds within areas subject to the direct disturbance by the activity within one year of an activity being completed then these weeds will be controlled by or for the proponent;

Works in NSW

- The proponent must obtain and be consistent with any required approvals from NSW authorities for works in NSW.

It has been determined that if the works are undertaken in a manner consistent with the above conditions attached to the ESO, they are unlikely to cause a significant adverse environmental impact.